

## PATENT ABSTRACTS OF JAPAN

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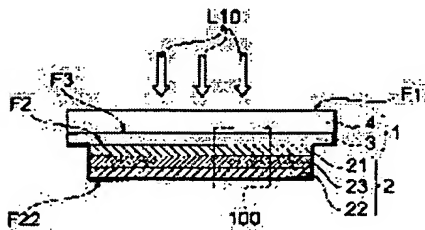
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(54) OPTICAL ELECTRODE AND DYE SENSITIZING TYPE SOLAR  
BATTERY HAVING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an optical electrode having a superior incident light absorbing efficiency and a dye sensitizing type solar battery having a superior energy conversion efficiency.

**SOLUTION:** The optical electrode 10 has a semiconductor electrode 2 with a light receiving surface F2, and a transparent electrode 1 arranged on the light receiving surface F2 so that the transparent electrode is adjacent to the semiconductor electrode. The semiconductor electrode 2 comprises a plurality of more than three layers, each of which contains oxide semiconductor particles as a semiconductor material. The average particle diameter of the oxide semiconductor particles included in each layer increases from the most inner layer 21 arranged in the closest position to the transparent



electrode to the most outer layer 22 arranged in the farthest position to the transparent electrode.

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